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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/555,922

12/26/2006

Eduard Gerum

12841/8

6487

26646 7590 04/10/2009

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EXAMINER

WILLIAMS, THOMAS J

ART UNIT

PAPER NUMBER

3657

MAIL DATE

DELIVERY MODE

04/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/555,922	Applicant(s) GERUM ET AL.	
	Examiner Thomas J. Williams	Art Unit 3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-62 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 32-38, 41-54 and 56-62 is/are rejected.
- 7) ☒ Claim(s) 39, 40 and 55 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/07/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Acknowledgment is made in the receipt of the preliminary amendment, the information disclosure statement and priority papers filed November 7, 2005 and the oath filed December 26, December.

Claim Objections

2. Claim 37 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claim does not appear to further limit the independent claim, since the limitations are all recited in the last paragraph of claim 32.

3. Claim 45 is objected to because of the following informalities: line 7, it appears that the recitation "the associated pressure regulation module" should be changed to "the brake activating device", since the high pressure selection valve actually transmits the higher pressure to the brake actuating device and not the pressure regulation module. Appropriate correction is required.

4. Claim 50 is objected to because of the following informalities: line 2, the recitation "a pressure medium store of the second brake circuit" should be changed to "the pressure medium store of the second brake circuit", since this element is previously recited in claim 49. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 45, 46, 47 and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 45 recites the limitation "the pressure regulation modules" in line 4. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 45 recites the limitation "the emergency brake circuit" in line 5. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 46 recites the limitation "the high pressure selection valves" in line 3. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 47 recites the limitation "the first supply circuit" in line 1. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 58 recites the limitation "the parking brake valve" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 32-37, 42-44, 54 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 200/0180270 A1 to Heckmann et al. in view of US 5,042,883 to McCann et al.

Re-claim 32-37, 42—4, 54 and 56, Heckmann et al. teach a braking system, comprising: at least one brake circuit E1; a second brake circuit E2, each circuit has an electrical control unit and own power supply, brake actuating devices of the front wheels are associated with circuit E1 and brake actuating devices of the rear wheels are associated with circuit E2; the circuits are activated by a foot pedal, or foot brake valve; each circuit is DC isolated (see electrical separating elements 152, 154, 156 and 158). However, Heckman et al. fails to teach the specifics of the foot brake valve, and in particular the foot brake valve having two electrical braking transmitter devices, each device connected to each control unit.

McCann et al. teach an electronic brake system comprising a foot brake valve having two electrical braking transmitting devices, one associated with the front brakes and the other associated with the rear brakes. It would have been obvious to one of ordinary skill in the art to have provided the system of Heckmann et al. with an appropriate foot brake valve of the type taught by McCann et al., thereby providing independent brake actuating signals to each of the isolated circuits to ensure proper braking function.

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15. Claims 38 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heckmann et al. in view of McCann et al. as applied to claim 32 above, and further in view of US 3,566,242 to Williams.

Re-claims 38 and 57, it is known that one can charge a first battery via a second battery, as taught by Williams. It would have been obvious to one of ordinary skill in the art to have provided the batteries (i.e. power supplies) of the braking system in Heckmann et al. with the capability to charge one another, or specifically a first battery capable of charging a second battery as taught by Williams, thus ensuring sufficient power is available to each DC isolated circuit.

16. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heckmann et al. in view of McCann et al. as applied to claim 32 above, and further in view of US 7,128,376 to Williams et al.

Heckmann et al. as modified by McCann et al. fail to teach two separate supply circuits, such as a service supply circuit and an emergency supply circuit. Williams et al. teach a brake system comprising two supply circuits, a service supply circuit and an emergency supply circuit. This ensures the availability of braking fluid for use in the brake actuating devices. It would have been obvious to one of ordinary skill in the art to have provided the brake system of Heckmann et al. with both a service supply circuit and emergency supply circuit as taught by Williams et al., thereby ensuring the presence of pressurized fluid for use in the braking actuating devices.

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17. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heckmann et al. in view of McCann et al. as applied to claim 32 above, and further in view of Williams et al. and US 6,729,696 to Kemer et al.

Heckmann et al. as modified by McCann et al. fail to teach two separate supply circuits, such as a service supply circuit and an emergency supply circuit. Williams et al. teach a brake system comprising two supply circuits, a service supply circuit and an emergency supply circuit. Furthermore, Williams teaches a high pressure selection valve 153 upstream a pressure regulation valve. This ensures the availability of braking fluid for use in the brake actuating devices. It would have been obvious to one of ordinary skill in the art to have provided the brake system of Heckmann et al. with both a service supply circuit and emergency supply circuit as taught by Williams et al., thereby ensuring the presence of pressurized fluid for use in the braking actuating devices. However, Williams et al. fail to teach a pressure regulation valve associated with the emergency supply circuit.

Kemer et al. teach a brake system having two circuits, wherein each circuit has a pressure regulation valve 154. It would have been obvious to one of ordinary skill in the art to have simply provided the emergency circuit as modified into Heckmann et al. with a pressure regulation valve as taught by Kemer et al., thereby providing simple application control means for the emergency supply circuit.

18. Claims 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heckmann et al. in view of McCann et al. as applied to claim 32 above, and further in view of GB 2 400 506 A to Monkman et al.

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Heckmann et al. fail to teach the specific type of DC isolation devices that are used in the brake system, other than they are optical couplers. Monkman et al. teach optical couplers as comprising transducers, see page 1 paragraph 1. These optical couplers isolate electrical systems or components. It would have been obvious to one of ordinary skill in the art when having provided optical couplers in Heckmann et al. to have used optical couplers comprising transducers as taught by Monkman et al., as these are common in the art and would have achieved the goal of isolating the two circuits.

Allowable Subject Matter

19. Claims 39, 40 and 55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. Claims 45, 47-53, 58 and 59 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ward et al. teach a foot brake valve having two electrical braking transmitting devices. Giers teaches a brake system having a first circuit and a second circuit. Holt et al. teach pressure regulation valves upstream a high pressure selection valve.

22. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128.

The examiner can normally be reached on Wednesday-Friday from 6:00 AM to 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi, can be reached at 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

/Thomas J. Williams/
Primary Examiner, Art Unit 3657

April 7, 2009